

# Autonomus I&C Maintenance and Health Monitoring System for Fission Surface Power, Phase II

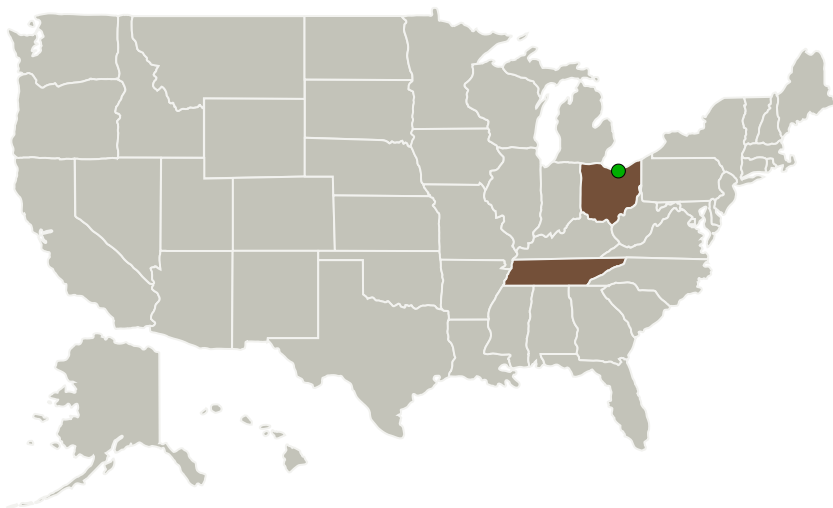
Completed Technology Project (2011 - 2013)




## Project Introduction

The primary goal of this project is to design and develop an autonomous instrumentation and control (I&C) health monitoring system for space nuclear power applications. The system, once fully developed, will be able to detect system anomalies based on analytical modeling technique using data from existing sensors in the power generator. The primary application for the proposed technology will be with space nuclear reactors and the non-nuclear test systems that are being used for component and system level validation.

## Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Analysis and Measurement Services Corporation	Lead Organization	Industry	Knoxville, Tennessee
 Glenn Research Center(GRC)	Supporting Organization	NASA Center	Cleveland, Ohio

Primary U.S. Work Locations	
Ohio	Tennessee



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## Project Transitions

 **June 2011:** Project Start

 **November 2013:** Closed out

### Closeout Documentation:

- Final Summary Chart(<https://techport.nasa.gov/file/138723>)

## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

### Lead Organization:

Analysis and Measurement Services Corporation

### Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

## Project Management

### Program Director:

Jason L Kessler

### Program Manager:

Carlos Torrez

### Principal Investigator:

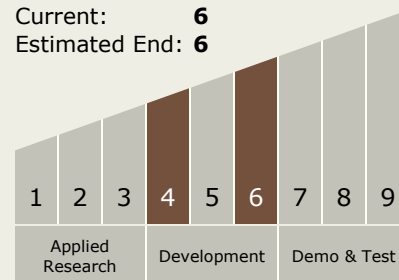
Brent Shumaker

## Technology Maturity (TRL)

Start: 4

Current: 6

Estimated End: 6



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## Technology Areas

### Primary:

- TX03 Aerospace Power and Energy Storage
  - └ TX03.3 Power Management and Distribution
    - └ TX03.3.1 Management and Control

## Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System